

REMARKS

Reconsideration and allowance of this application are respectfully requested in view of the above amendment and the discussion below.

Applicants invention, as defined by independent claims 1 and 7, concerns a power supply system with an electric generator and a battery as well as a power control unit for controlling electric power supplied to electric loads such as in a automobile. The power supply system includes battery sensing devices and load condition sensing devices for sensing the operation condition of electrical loads. When a new electrical load requirement is made to a system of this type, according to the present invention an estimation of the changing requirement is made and an electric load is selected for possible current limitations. The current limitation is supplied to the electric load when the estimated power supply voltage is smaller than a predetermined value.

Original claim 1 is rejected under 35 USC 103 as being unpatentable over Paul et al. (U.S. Patent 5,198,698), in view of Kikuchi (U.S. Patent 6,600,293), whereas claimed 3 and 5 are rejected over the above combination and further in view of Nordentoft (U.S. Patent 6,662,563), and claim 4 is rejected over the first two references in further view of Hsieh (U.S. Patent 5,811,888). Lastly, independent claim 1 is rejected under 35 USC 102 as anticipated by Hikita (U.S. Patent 5,608,309).

In response to these rejections Applicants have amended independent claim 1 and provided claim 4 in an independent format in order to more clearly recite structure not shown or made obvious by the references.

The Paul reference '698 has an auxiliary power supply system providing DC power on demand for uninterruptible power supply 46. The auxiliary power supply of Paul includes an alternator 62 and a microprocessor 70 for controlling the components of the system including the alternator 62. The operation of the uninterruptible power supply (UPS) and the voltage of the UPS battery 45 are monitored so that when auxiliary electric power is required, electric power obtained by driving the alternator 62 is rectified and is supplied to the UPS 46. As indicated in the Office Action, Paul does not disclose limiting the current supply to the load in association with the lowering of the power supply voltage. Moreover, applicants submit that the reference to Paul has no disclosure concerning the features of amended independent claim 1 using the operative condition of the electric loads and incorporating a new electric load to provide an estimated variation of the power supply based on the condition of the battery and the operative condition of not only the previous plural electric loads, but the newly added electric load. Subsequently, one of the electric loads is selected for receiving a current limitation and that limitation is then supplied to the selected electric load when the estimated power supply voltage is smaller than a predetermined the value. Accordingly, using the system of Paul it is impossible to limit the current supply to an electric load by estimating the power supply

voltage during the introduction of a new electric load and then selecting the electric load which is to receive the current limitation when the estimated power supply voltage is smaller than the predetermined value.

The reference to Kikuchi ' 293 is a battery controlled system for a hybrid automobile wherein, when the memory effect to the battery is detected, the center of charge SOC is changed when. When the battery reaches a limitation lower value, discharge of the battery is inhibited and electric power consumption of the driver motor 36 is adjusted to be more than or less than the power of the generator 42. The '293 reference provides prevention of over-discharge of the battery by eliminating electric power consumption of the drive motor 36. However, there is no limit of current supply to a selective electric load in order to prevent the lowering of the power supply voltage when a new load requirement is introduced as is claimed in independent amended claim 1.

Additionally, there is no disclosure in the '293 reference whereby the operative condition of the electric load provides the system with the ability to estimate the variation of the power supply voltage at the time of the requirements of the plural electric loads and based on the condition of the battery and the operative condition of the new electric load. Furthermore the subsequence selection of one load to be limited and the subsequent limiting based on the value of the estimated power supply voltage being smaller than a predetermined value is not a part of Kikuchi.

Therefore, none of the references to Paul or Kikuchi '293, even if the references are combined, provide the invention as defined by amended independent claim 1 and the dependent claim 2-3 and 5-6, or the new independent claim 7 which contains limitations of the now cancelled claim 4 in addition to the independent claim 1.

Therefore in view of the distinguishing features between the claim invention and the references which features are not shown or disclosed or made obvious by references or their combination, Applicants respectfully request that this application containing claims 1-3 and 5-7 be allowed.

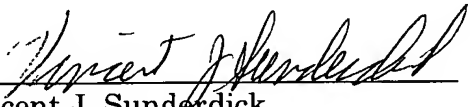
If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

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If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #056207.52935US).

Respectfully submitted,

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